

THE COMMONWEALTH OF MASSACHUSETTS  
OFFICE OF CONSUMER AFFAIRS AND BUSINESS REGULATION

**DEPARTMENT OF  
TELECOMMUNICATIONS & ENERGY**

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July 27, 2004

Edward J. Dienst  
Senior Vice-President, Distribution Operations  
Massachusetts Electric company  
55 Bearfoot Road  
Northborough, MA 01532

Re: Reported incident of July 22, 2004, Shrewsbury, Massachusetts

Dear Mr Dienst:

The Department of Telecommunications and Energy (the "Department") has received initial notification from Massachusetts Electric Company ("MECo" or the "Company") of an incident on July 22, 2004, involving an explosion at a MECo manhole in the Town of Shrewsbury, Massachusetts. The Company's initial notification stated that no personal injury resulted from the explosion. The Company also stated that it is conducting its own investigation of the incident.

The Department is conducting an assessment of this incident. Department staff has communicated with the Company and received preliminary information. To assist the Department in our assessment of this incident, we require that MECo submit to the Department written responses to the following questions by August 3, 2004.

1. Please provide a complete description of the incident and submit related documentation and/or information that the Company has collected concerning the likely cause of the incident.

2. Please describe the topography of the location and the surrounding infrastructure that may be relevant to the determination of the cause of the incident.
3. Please indicate the date and time of the incident.
4. Please provide the date that the manhole cover in question was installed.
5. Please describe the manhole cover in detail including its size, weight and design characteristics. Please provide any documentation that the Company has related to the care and maintenance of the manhole cover and/or manholes where the particular cover is used.
6. Please describe any maintenance/repair performed in this particular manhole since January 1, 2000, including the date of the work, the nature of the work performed and the reason necessitating the work. Please provide documentation related to the maintenance/repair work of the manhole.
7. Please describe the facilities that are located inside the manhole and the purpose served by each facility. Please describe any other facilities known to the Company that are proximate to the manhole.
8. Please provide a one-line diagram showing the distribution service supply lines that are located in the manhole, including the associated stations served by the lines. Also identify the cable type, vintage of the cables, normal and emergency ratings of the cables, and the loading condition of the cable immediately prior to the incident.
9. Please calculate the short circuit current at the failed cable, and estimate the mechanical force resulting from this short circuit and its impact on the manhole structure. Please provide related documentation on how the Company performed its calculation and the information relied upon for any estimates.
10. Please indicate whether the distribution service supply lines located within this manhole have experienced any failure since January 1, 2000. If so, please explain the reason for each failure.
11. Please provide information on the equipment that failed inside the manhole as part of the current incident.
12. Please describe any associated or "sympathetic" outages that occurred coincident with this event.

13. Please provide a list of all manhole explosions that occurred since January 1, 2000 within the entire Company's system (Massachusetts Electric and Nantucket Electric). As part of this list, include the date of the incident, a description of any injury that occurred, and the root cause of each incident.

14. Please indicate whether the Company has tested and found the existence of some form of gas: (a) within the manhole where the incident occurred; or (b) within any adjacent manhole.

15. Please describe MECo's process for tracking and investigating manhole incidents.

To the extent this is an ongoing investigation, please update the Department on the status of your investigation as information becomes available. Copies of the Company's responses should be submitted to: (1) Mary L. Cottrell, Secretary; (2) Ronald F. LeComte, Director, Electric Power Division; (3) Ghebre Daniel, Engineer, Electric Power Division; and (4) John Cope-Flanagan, Esquire.

Should you have any questions concerning the information required by the Department, please contact me at 617-305-3658.

Sincerely yours,

Ronald F. LeComte  
Director, Electric Power Division

cc: Commission

Mary L. Cottrell, Secretary  
Timothy J. Shevlin, Jr., Executive Director  
Andrew O. Kaplan, General Counsel  
John Cope-Flanagan, Esquire  
Ghebre Daniel, Electric Power Division